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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,687	10/16/2003	Annapurna Karicherla	A03P1071	2607
36802	7590	09/17/2007		
PACESETTER, INC. 15900 VALLEY VIEW COURT SYLMAR, CA 91392-9221			EXAMINER HOEKSTRA, JEFFREY GERBEN	
			ART UNIT 3736	PAPER NUMBER
			MAIL DATE 09/17/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/688,687

Applicant(s)

KARICHERLA ET AL.

Examiner

Jeffrey G. Hoekstra

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13, 15-18 and 20-50 is/are pending in the application.
- 4a) Of the above claim(s) 1-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13, 15-18 and 20-47 is/are rejected.
- 7) ☒ Claim(s) 48-50 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119.

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Notice of Amendment

1. In response to the amendment filed on 06/29/2007, amended claim(s) 13, 15, 16, 22-25, 31, 32, 34, and new claim(s) 48-50 is/are acknowledged. The current rejections of the claim(s) 13, 15-18, 20-47 is/are *withdrawn*. The following new and reiterated grounds of rejection are set forth:

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 13, 15-18, 20-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schulman et al (US 5,570,926) in view of Wise et al (US 5,113,868).

4. For claims 13, 22-23, and 31-32, Schulman et al discloses an hermetically sealed implantable sensor for a cardiac pacemaker, comprising:

- an insulating substrate (100) having a first outer surface opposing a second outer surface and defining an electrical feedthrough region (column 6 lines 16-21 and column 8 line 28 – column 10 line 10);
- a sensor (50) (column 6 lines 21-24) having a first outer surface in contact with said substrate having electrical connectivity with an implantable lead and a second outer surface opposing said first outer surface;
- an electrical conductor (32,113) disposed within said feedthrough region;

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- a bond wire (35,105) connecting said conductor to said sensor and disposed within an insulator and/or insulative deposit (column 5 lines 20-27 and column 8 line 28 – column 10 line 10);
 - electronic circuitry (45) capable of generating electrical pulses as a pulse generator;
 - an implantable lead (96) connected to said conductor and configured for connection to an implantable medical device (column 6 lines 21-24) having electrical connectivity with said pulse generator;
 - a layer of insulating material (22,100) (column 3 line 60 – column 4 line 2) encapsulating the sensor and substrate, wherein an inner surface of said film contacts the outer surfaces of said sensor and substrate forming a voidless encapsulation (column 1 lines 16-34 and column 8 line 28 – column 10 line 10)
 - a thin film of hermetic material (26,110,120) (column 3 line 60 – column 4 line 19) encapsulating both the second outer surface of the pressure sensor and the first outer surface of the insulating substrate, wherein an inner surface of said film contacts the outer surfaces of said insulating material substrate and the second outer surface of the pressure sensor forming a voidless encapsulation therearound (column 1 lines 16-34 and column 8 line 28 – column 10 line 10).
5. For claims 15, 25, and 34, Schulman et al discloses a substrate composed of glass (column 3 lines 54-60).
6. For claims 16, 26, and 35, Schulman et al discloses a temperature sensor (column 6 lines 21-24).

7. For claims 17, 27, and 36, Schulman et al discloses a hermetically sealing material comprised of platinum (column 1 lines 35-47).
8. For claims 18, 28, 29, and 37, Schulman et al discloses using an insulating layer thickness of 0.25 mil (column 6 lines 38-39) which equals 0.00635 mm and is thus within the ranges of 10 nm to 0.1 mm and 5.0 nm to 0.5 mm.
9. For claim 20, Schulman et al discloses a conductive pad (36) of material connecting said lead and said electrical conductor.
10. For claims 21, 30, and 38, Schulman et al discloses implanting the hermetically sealed circuitry connected to the lead to pace and sense the heart (column 1 lines 34-53 and column 2 lines 1-19).
11. Schulman et al discloses the claimed invention except for explicitly disclosing the sensor is a pressure sensor comprising a diaphragm or capacitive type pressure sensor, the sensor is an integrated temperature and pressure sensor, the outer surface of the thin film of hermetic material is exposed to the body, and the thin film of hermetic material deflects with the pressure sensor in response to pressure changes in the body. Wise et al teaches a pressure sensor (30) mounted on an insulator (32) and comprising a capacitive type pressure sensor with a diaphragm (column 3 lines 20-39), the sensor is an integrated temperature and pressure sensor (column 10 lines 12-18), the outer surface of the thin film of hermetic material (414) is exposed to the body (column 14 lines 8-26), and the thin film of hermetic material deflects with the pressure sensor in response to pressure changes in the body (column 14 lines 8-26). It would have been obvious to one having ordinary skill in the art at the time the invention was made to

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modify the implantable sensor as taught by Schulman et al, with the implantable sensor as taught by Wise et al for the purpose of increasing the efficacy of medical diagnostic equipment to provide high precision measurements via sensing equipment.

Response to Arguments

12. Applicant's arguments with respect to claims 13, 15-18, and 20-47 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

13. Claims 48-50 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey G. Hoekstra whose telephone number is (571) 272-7232. The examiner can normally be reached on Monday through Friday, 8:00 a.m. to 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max F. Hindenburg can be reached on (571) 272-4726. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J.H./
Jeff Hoekstra
Examiner, Art Unit 3736


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